

Amendments to the Claims

Listing of Claims:

Claims 1-11 (canceled).

Claim 12 (new). An installation for drying a moisture-containing product, comprising:

an air-dehumidifying apparatus for dehumidifying air, within which moist fresh or ambient air is moved through at least one body formed with a lumpy, granular and/or porous water-vapor adsorbent through which air can flow and which is based on a silicate-containing material, silica gel ~~or the like~~, and finally the air dehumidified there is directed over the product to be dried, which is arranged in a drying chamber or the like, the dehumidifying of the fresh or ambient air being interrupted within the dehumidifying apparatus when the saturation of the adsorbent body with water is achieved, and the water adsorbed by the adsorbent body being desorbed and expelled from the latter by heating and/or by means of a carrier airflow,

said air-dehumidifying apparatus including at least two installation lanes with:

dehumidifying chambers each disposed downstream of a feed or inlet chamber for moist fresh or ambient air, accommodating said adsorbent body and each having a microwave generator or magnetron for heating said adsorbent body, and at least one discharge on an outflow side for discharging dehumidified air from said dehumidifying chambers;

regeneration-air feeds or charging chambers assigned in each case to one of said dehumidifying chambers and from which, directly or by way of regeneration-air conveying means, regeneration air is directed through said adsorbent body for desorption of water, adsorbed by said adsorbent body from the air laden with moisture from the product to be dried, after saturation of said adsorbent body is achieved; and

microwave generator switched on and active in terms of heating, and with a second three-way changeover or closing member closed toward the dry-air discharge and open toward the regeneration-air feed or charging chamber, in the second direction, opposed to the first throughflow direction, from the second regeneration-air feed or charging chamber to the second fresh- or ambient-air feed or inlet chamber; and

wherein, during a significant increase in the moisture content of the dehumidified air, flowing through the dry-air discharge toward the drying chamber and flowing out of the first adsorbent body of the first installation lane, beyond a respectively predetermined moisture level and/or during a decrease in the moisture of the regeneration air leaving the dehumidifying chamber and then flowing through the respective fresh- or ambient-air inlet chamber of the second installation lane and finally delivered to the environment;

by changeover of each of the three-way changeover or closing members, this changeover being controlled by means of the monitoring and control unit supplied with measuring data from sensors (89, 89', 89"; 86, 86'), the first dehumidifying chamber containing the now water-laden first adsorbent body of the first installation lane, with the first microwave generator there being switched on or activated, can be changed over to adsorbent regeneration operation, and the second dehumidifying chamber, containing the freshly regenerated adsorbent body, of the second installation lane, after the second microwave generator there has been switched off, can be changed over to air-dehumidifying operation.

Claim 15 (new). The drying installation according to claim 12, wherein:

for the movement or conveying of the fresh or ambient air through the respective adsorbent body and of the air dehumidified by means of the latter through the dry-air discharge of the air-dehumidifying apparatus, at least one suction fan - generating a vacuum, ~~preferably~~ of about 100 to 400 mbar, lying below the ambient pressure, in said discharge - is arranged in the dry-air discharge, and the dry air can be introduced on the pressure side by means of this suction fan, at a positive pressure lying above the ambient pressure, into the